

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4GHz Pure Transmitter (Controller Unit) for a RC Plane from 2413,2452-2471MHz with 1MHz channel spacing and the plane operates in a frequency range from 2412MHz to 2462MHz at WiFi 802.11b,g and n20 (11 channels with 5MHz spacing). The EUT is powered by 6 X 1.5V AA batteries. After switch on the EUT and paired with RC Plane, the RC Plane can be controlled to fly forward, backward, turning left/right direction by the controller. Also, the Plane can pair with smart device that for live streaming for the camera on plane. Photo shooting and video recording can be operated through the App installed on smart device.

Antenna Type: External integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 102-104dB μ V/m at 3m

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 104dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 7.536\text{mw}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 7.536mW.

The SAR Exclusion Threshold Level:

= $3.0 * (\text{min. test separation distance, mm}) / \text{sqrt}(\text{freq. in GHz})$

= $3.0 * 5 / \text{sqrt}(2.471)$ mW

= 9.54 mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.